

Test assignment for a Middle Java Developer position

****Task****

Develop an application for calculating the area and perimeter of geometric shapes. The application should be implemented as a REST API. The minimum set of shapes to support includes a square, a rectangle, a triangle, and a circle (perimeter is the circumference length).

****Requirements****

1. Create a Spring Boot 2 application using Java 8+.
2. Implement a single REST API endpoint that accepts input for calculating the area and perimeter of different geometric shapes. The endpoint should not use conditional statements (e.g., if-else) to determine the shape calculation service based on the request.
3. Support the following geometric shapes:
 - Square
 - Rectangle
 - Triangle
 - Circle (perimeter is the circumference length)
4. Implement validation.
5. Use appropriate HTTP status codes.

****Technology Stack****

- Spring Boot 2
- Java 8+
- Any additional libraries or frameworks within the Spring ecosystem as needed.

****Submission****

Please submit your solution as a Git repository with a README file that includes instructions on how to build and run the application, as well as any other relevant information about your implementation.

Good luck with the assignment!